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### In This Issue:

page 3
Caruthersville
Fire Chief
Recognized as
"Missourian of
the Day"

page 4 PASS Device Dependability Ouestioned

page 6 Division Employee Awards

page 7 Division Receives Grant

page 8
Fire Service
Pioneer Honored
Division Update

page 9 2007 Fire Fighters' Day at the Capitol

page 10 Training and Certification Unit Report

page 14 Investigation Unit Report

page 18
Boiler and
Pressure Vessel
Unit Report

page 19 Elevator Safety Unit Report

page 20 NFIRS report

## From State Fire Marshal Randy Cole

During mid January, a major winter storm pelted many Missouri counties with ice, sleet and snow, resulting in thousands of Missourians left without electricity throughout over 30 counties.

The wrath of the January 12<sup>th</sup> storm extended from the southwest corner of the state and followed the I-44 corridor toward St. Louis. Governor Blunt requested and received federal disaster designation for 32 counties along the storm's path.



The impact of the storm immediately prompted activation of the State Emergency Operation Center (SEOC) on Saturday morning January 12<sup>th</sup>. Representatives from state agencies were summoned to the SEOC and began providing assistance within their specific areas of responsibility.

Before the day was out fire mutual aid was requested by Region D. Over



the next several days, mutual aid assistance from Regions A, C, F, and E were requested and responded to Regions D and I.

Fire departments within Region D and Region I experienced dramatic call volume increases due to downed power lines as well as a number of structure fires within Region D.

### From State Fire Marshal Randy Cole continued



Throughout the week, fire departments assisted in clearing downed trees and branches from road-ways, helped with well-being checks, medical responses and vehicle accidents.

Not only was this Missouri's largest and most sustained activation of the fire mutual aid system, it was the largest mass care effort undertaken in the state. Numerous emergency shelters were opened

throughout the affected counties providing care to hundreds of residents who were without heat.

Many residents turned to alternate heat sources to keep warm, including the use of generators. Although efforts were made to educate the public of the dangers of carbon monoxide, seven southwest Missouri residents died of carbon monoxide poisoning, and more than a dozen

residents were treated for exposure affects.

During this storm event, another invaluable state resource was activated and provided tremendous support within emergency operating centers in the counties of Greene, Dallas, Laclede, Barry and Lawrence. Members of the recently established incident management teams (IMT) were deployed to assist local authorities who were exhausted and overwhelmed by the situation.

My sincere appreciation goes out to those fire departments, fire fighters,



mutual aid coordinators and IMT members who stepped up to provide assistance to the Division and those in need. Missouri's fire service is a true brotherhood, dedicated and professional in the services provided.

The fire mutual aid system once again has proven it works. It works due to the dedication of those involved and their willingness to be involved.

# Caruthersville Fire Chief Charlie Jones Recognized as "Missourian of the Day"

by State Fire Marshal Randy Cole

Thanks to State Representative Terry Swinger, on Monday, January 30<sup>th</sup>, Caruthersville Fire Chief Charlie Jones was recognized by state legislators as "Missourian of the Day". The recognition was in conjunction with Chief Jones' emergency planning efforts in his community.

On the evening of April 2, 2006, a devastating F3 tornado ripped through Caruthersville causing extensive property damage. In fact, Chief Jones nearly became a victim himself, being near the storm's path. Chief Jones has been instrumental in establishing emergency pre-planning efforts which proved to be key to preventing loss of life.

Congratulations to Chief Jones, a well deserved recognition and honor!



Following his recognition at the State Capitol, Caruthersville Fire Chief Charlie Jones was joined by State Fire Marshal Randy Cole and State Emergency Mangagement Agency Director Ronald M. Reynolds.

# PASS DEVICES DEPENDABILITY QUESTIONED

By State Fire Marshal Randy Cole

An investigative report from MSNBC on February 6<sup>th</sup> citing National Institute of Standards & Technology (NIST) testing results has caused concern throughout the nation's fire service regarding the dependability of the Personal Alert Safety System (PASS) devices used to protect fire fighters in emergency situations. Key points from this report have been captured below.

I urge Missouri fire departments and fire fighters to be aware of these issues and take any precautions needed to ensure their PASS devices function properly and are properly maintained. This is obviously an issue the fire service needs to monitor. We too should not ignore the fact that PASS devices have functioned as designed in emergency situations.



Fire fighters should not depend solely on the heat sensor equipped PASS devices as an indicator of high temperatures. They must always rely on their training and experience and be aware of other indications that temperatures are rising rapidly in a fire.

Some PASS devices have reportedly failed when water entered their housing. Departments should open any devices exposed to water and make sure the interior components are fully dried before placing the units back in service.

NIOSH reported during the investigation of four fire fighter fatalities which occurred between 2001 and 2004, the PASS alarms were not heard or were barely audible. The PASS had been certified as compliant to NFPA 1982, Standard on Personal Alert Safety Systems (PASS), 1998 Edition, and involved both stand-alone PASS and SCBA-integrated PASS.

### High Temperature Problems

Exposure to high temperature environments may cause the decibel level of PASS alarm signals to be reduced. This reduction could cause the alarm signal to become indistinguishable from background noise at the incident scene.

Initial laboratory testing of PASS by the National Institute for Standards & Technology's (NIST) Fire Research Division has shown this sound reduction may begin to occur at temperatures as low as 300° F and could affect all PASS devices. Additional work is required to better characterize the thermal conditions (temperatures and exposure durations) that contribute to alarm signal degradation.

PASS devices from two manufacturers were tested by NIST. It was noted that the PASS sounded at lower dBA levels when hot but recovered rapidly as it cooled. Devices from one manufacturer tended to have more problems with melting and deformation due to heat and had a tendency to stop alarming and shut off during the cooling period. Neither manufacturer was named in the NIST report.





### Water Leakage Issues

Norfolk, Virginia Fire-Rescue Department has reported their MSA "ICM 2000+" integrated PASS devices have been experiencing water-tight housing leakage and the loosening of the analog gauges. The fire department also reports the units go into full alert during normal, routine use. Similar problems have been reported in Carrollton, Texas, and Toronto.

Since 2000, Dallas, Texas fire fighters have been using hair dryers to dry out the battery and electronic compartments of their Scott Health & Safety Co. PASS devices. The water causes the devices to beep constantly, and firefighters fear that it might cause them not to sound at all when needed.

A second manufacturer, Mine Safety Appliances, sent out a user advisory in November 2001 describing a problem which caused about 2 percent of its PASS devices to beep continuously. Some of those incidents were caused by water, the company said. The advisory attributed the problem to screws that have become loosened over time, and said it could be fixed by using different screws and adding waterproof glue.

No such alert was sent out by a third manufacturer, Survivair Respirators, although executives have testified that from 5 percent to 20 percent of its PASS alarms suffered from water leaks.

### NFPA PASS Device Standard Revised

The National Fire Protection Association (NFPA) approved a tougher standard for PASS alarms in December. NFPA 1982-2007: *Standard on Personal Alert Safety Systems (PASS)*, which is available on the NFPA website, requires a series of tests showing the PASS alarm can withstand being heated, dunked in water, and tumbled in a dryer, according to a summary provided by the association.

The maximum temperatures the devices are required to withstand in the new test are no higher than in the old test: 500 degrees Fahrenheit for five minutes, then 1,500 to 2,100 degrees for 10 seconds in the flashover test. But it does require that the PASS device produce a sound after some of the torture tests; the old standard just required it not to melt or catch on fire.

The new standard also adds a "muffle test." The alarm will have to be more powerful so it can be heard if a firefighter falls on it.

Some manufacturers told the association that the new heat standard can't be met. But the largest manufacturer of PASS alarms, Scott, says it will have a device to meet the new standard by this summer, when old inventory can no longer be sold.

### Replacement process?

As for the more than one million U.S. firefighters with current devices, their fire departments may have to pay for new ones, which cost approximately \$200 each. It is not clear whether any agency has authority to order a recall of devices currently in use:

- The U.S. Consumer Product Safety Commission says it does not have a role, because a firefighter's equipment is not considered a consumer product.
- The National Fire Protection Association says that its standards are voluntary, that responsibility to enforce those standards rests with the Safety Equipment Institute, another nonprofit, which certifies devices as meeting the standard.
- Note: The Safety Equipment Institute says that only the manufacturers can initiate a recall.

# 2006 Division Employee of the Year



**Deputy Chief Larry** Watson was selected as the Division's 2006 **Employee of the Year** for his level of expertise and professionalism exhibited as he oversees the Elevator and Amusement Ride Safety Inspection Units. In addition, during the summer months Larry spends countless hours conducting amusement ride safety spot checks.

# 2006 Fire Marshal's Award of Recognition

**Training Tech Jim** McKenney received the **State Fire Marshal's Award of Recognition** for his work with the **Training and Certification Unit. In FY** 2006, Jim assembled over 2,914 test packets for the HazMat levels and issued over 2.350 certifications. Jim alone provides training and technical support for the 731 Missouri fire departments participating in the **National Fire Incident** Reporting System.



# DIVISION RECEIVES FACTORY MUTUAL GRANT

By State Fire Marshal Randy Cole



Factory Mutual Representative Ron Tucker presents Fire Marshal Cole with the FM Global grant.

On February 14<sup>th</sup> Factory Mutual Global, Inc., a leading property insurer of the world's largest businesses, presented the Division of Fire Safety with a \$6,250 check issued through FM Global's annual competitive grant program. Since 1974, FM Global has contributed more than \$2 million worldwide to agencies that strive to prevent and control arson.

The grant will be used by the Division to purchase the latest scene diagramming software for each of the Division's fire investigators. This software will enhance scene documentation and establish a consistent diagramming process for the Division.

From an investigative standpoint, scene diagrams are often one of the most useful tools in courtroom presentations. A proper scene diagram assists the fire investigator by providing a judge or jury with a better understanding of the scene through a graphical overview of a fire scene or the location of evidence within a scene.

Without this grant opportunity, the Division's budget could not support the purchase of such software.

Asst. State Fire Marshal Greg Carrell was instrumental in the Division receiving this grant. The grant proposal submitted by Greg provided FM Global with the justification and benefits this software will provide to the Division.

I would like to thank FM Global for providing the opportunity for our Division to expand our ability to provide the best possible investigations through the use of this advanced scene diagramming technology. It is through cooperative efforts such as this that the crime of arson will be further deterred in our state.

### **Fire Service Pioneer Honored**

By State Fire Marshal Randy Cole

On Saturday, February 10<sup>th</sup> a full fire service funeral was held in O'Fallon for a well known Missouri fire service pioneer. Retired O'Fallon Fire Chief William O. "Bill" Steiner passed away on Wednesday, February 7<sup>th</sup> at age 90 after serving the O'Fallon Fire Protection District for 40 years. Chief Steiner holds the distinction of being the longest active Fire Chief in the District's history, serving over 23 years as Chief.

Not only was Chief Steiner extremely active and dedicated to protecting his community, he devoted much of his life promoting the fire service statewide. Chief Steiner was instrumental in the formation of the Fire Fighter's Association of Missouri (FFAM) and was involved in efforts to establish the appointment of the first State Fire Marshal. Chief Steiner devoted many hours with the State Fair Fire Department and was one of the first instructors for the University of Missouri Fire & Rescue Institute.

I was honored to meet Chief Steiner's children on Saturday and personally thanked them on behalf of Missouri's fire service for their father's devotion and dedication to the state's fire service.

Chief Steiner's fire service accomplishments locally and statewide will not be forgotten.



### DIVISION OF FIRE SAFETY UPDATES



by Personnel Analyst Donna Moore

### TRAINING & CERTIFICATION UNIT:

On October 2, 2006, Dee Dee Sorrels assumed the duties of Executive I in the Training Unit. She filled the position vacated by Dorinda Tomka, who resigned after working with the Division for 8 ½ years. Dee Dee has 10 years experience working as an Examiner and an Account Clerk with the Department of Revenue and is co-owner of a family business.

### BOILER & PRESSURE VESSEL UNIT:

On November 1, Gary Scribner was promoted to Deputy Chief of the Boiler & Pressure Vessel Unit. He filled the vacancy left by Jim Pratt who resigned on October 13 with over four years of service with the Division.

In December, Jeff Clark and Tom Springer were hired as Inspectors for the Boiler & Pressure Vessel Unit. Jeff has been in the Boilermakers Union for numerous years where he worked with mechanical repairs, welding and rigging. Jeff is conducting inspections in the North Central Missouri and Jackson County areas. Tom was a Boiler Plant Supervisor for the Department of Corrections and also served in the US Navy where he supervised the operation and maintenance of steam turbines, propulsion equipment and turbo steam generators. Tom will be conducting inspections in the Northeast Missouri area.



Deputy Chief Gary Scribner



On April 11, 2007 fire fighters from across the State will gather at the State Capitol for the annual Fire Fighter's Day. This event not only draws attention to the services Missouri fire fighters provide to their communities throughout the state, but also allows fire fighters to have lunch and discuss pending fire service legislation with their state legislators.

Once again, lunch will be provided by Fire Service Alliance and the Professional Fire and Fraud Investigators Association and prepared by the St. Charles County Fire Chiefs' Association.

The event will also include a Line of Duty Death Memorial Service. Unfortunately, during 2006, one Missouri fire fighter died in the line of duty. Fulton Fire Department Captain Alan D. Leake will be honored and remembered on this day. On April 30, 2006, Capt. Leake suffered a heart attack while working at the scene of a second consecutive motor vehicle accident along U.S. Highway 54 just north of Fulton. Capt. Leake served the Fulton Fire Department for twenty-three years.

# TRAINING AND CERTIFICATION UNIT

by Deputy Chief Kim Becker



## REGIONAL TESTING

Regional testing sites and dates are listed under the Calendar of Events at <a href="www.dfs.dps.mo.gov">www.dfs.dps.mo.gov</a>. Certification booklets outlining testing requirements and forms may be downloaded from our website. Pre-registration is required for all exams. Call the Training and Certification Unit staff for assistance.

# DIVISION COURSE SCHEDULE

April 30 - May 4: Fire Investigator - *Metropolitan* 

Community College, Blue River Campus

May 21-25: Fire Inspector - Battlefield Fire

**Protection District** 

July 16-20: Fire Investigator - *St. Louis* 

County Fire Academy

Preregistration is required for all Division courses. Visit our website at <a href="www.dfs.dps.mo.gov">www.dfs.dps.mo.gov</a> to download certification booklets that include information regarding prerequisites and course applications. Students must meet all of the prerequisites in order to be considered to attend Division courses. Priority will be given to qualified applicants from the area where the course is being held.

# Popularity of Division's Investigator and Inspector Courses Continue to Increase

by Deputy Chief Kim Becker

With courses filling quickly and long waiting lists, the Division's Fire Investigator and Fire Inspector I Courses continue to be in high demand across the state.

The Division presents four of each week-long courses each fiscal year. Time and personnel constraints limit the number of courses which can be presented. Additionally, the number of students is limited due to the time involved with the practical skills evaluations during the courses.

Twenty-four participants took part in a Fire Inspector Course hosted by the Kansas City Fire Department and held at the KCFD Fire Academy from Oct. 16-20, 2006. Practical skills were conducted on Oct. 20 at Kansas City Union Station. Our special appreciation goes to Belton Assistant Chief Jason Webb, South Metro Fire District Battalion Chief John King, and Division Inspectors Stoney Bowers, Terry O'Dell, and Sheryl Anderson for their assistance as course instructors. We wish to thank Assistant Chief Gene Gould from



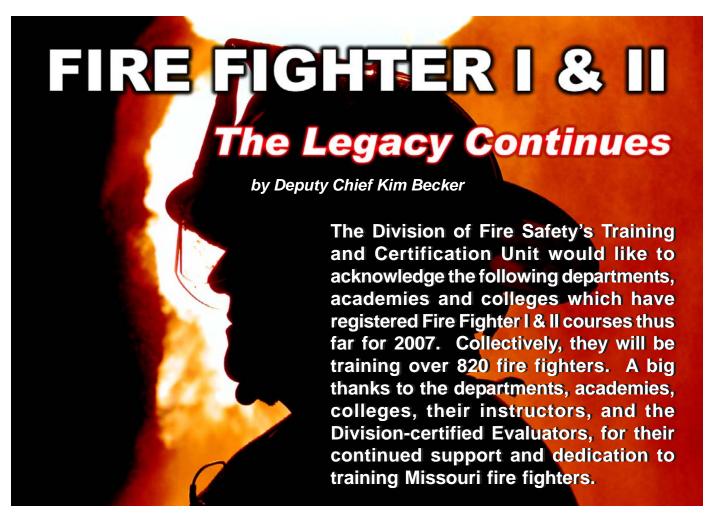
Central Jackson County Fire District; Jason Webb of the Belton Fire Department; and Division Inspectors Stoney Bowers, Terry O'Dell, and Glenn Hurla for their assistance as skills evaluators for the course. We are grateful to the Kansas City Fire Department for their hospitality.

A Fire Investigator Course was held Oct. 30-Nov. 3, 2006 at the Division Office in Jefferson City with 25 participants. Thanks to Bill Farr, Assistant Fire Marshal Greg Carrell, and Regional Chief Investigation Rodger Windle for their expertise as instructors during this course.

Another Fire Investigator Course was hosted by the Springfield Fire Department from Jan. 8-12, 2007 with 23 participants. We greatly appreciate the assistance of Division Investigators John Matney, Chris Thompson, and Randy Sweet for assisting as course instructors. Students were barely out of the class on January 12 as the ice storm began in the Springfield area.

The Cottleville Fire Protection District hosted a Fire Inspector Course from Feb. 12-16 with 24 people attending. Our special appreciation goes to Central County Fire and Rescue Chief Russ Mason and Assistant Chief Steve Brown; Florissant Valley Fire Marshal Steve Gettemeier; and Cottleville Fire Chief Rob Wylie for their assistance as course instructors. We also would like to thank Chief Rob Wylie and the Cottleville staff for making the students feel welcome. Our thanks also go to Steve Brown of Central County Fire and Rescue; Steve Gettemeier of Florissant Valley Fire District; Division Regional Chief Rodger Windle; and Division Inspectors Barry West, Cedric Scott, and Wayne Shirk for their help in evaluating practical skills.

It is important that anyone interested in attending future courses submit their preregistration materials as soon as courses are scheduled due to the demand.



- Ft. Osage CTC (2 classes)
- Boles Fire Protection District
- Mineral Area College (2 classes)
- Sullivan Fire Protection District
- Carl Junction Fire Dept.
- Linn Fire Protection District
- Warrenton Fire Protection District
- Shelbina Fire Dept.
- Kansas City Fire Academy
- Cedar Hill Fire Protection District
- Sikeston DPS
- South Metro Fire Protection District
- St. Robert Fire and Rescue
- Calhoun Fire Dept.
- St. Louis County Fire Academy
- Mountain Grove Fire Dept.
- Mid-County Fire Protection District
- LaBelle Fire Protection District
- Clinton Fire Dept.
- Central Callaway Co. Fire Prot. Dist.
- Cass Career Center (2 classes)

- Peace-Valley-White Church Fire Dept.
- Rolla Technical Center
- Lake Ozark Fire Protection District
- Western MO Regional Fire Academy
- Grand River Technical College
- Sedalia Fire Dept.
- Ash Grove Fire Protection District
- Nevada Fire & Rescue
- Hillyard Technical Center (2 classes)
- Trenton Fire Dept.
- Buffalo City Fire and Rescue
- Pleasant Valley FPD
- Rolla Fire and Rescue
- Lincoln Co Fire Protection District
- City of Eldon Fire Dept.
- Kirksville Fire Dept.
- Owensville Fire Dept.
- Eagleville/Bethany Fire Department
- Western MO Regional Fire Academy
- North Tech High School Academy
- Columbia Fire Dept.

# No-Cost Classes Available

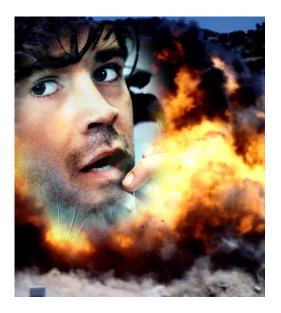


# METH LABS First Responder Awareness

This two-hour course is designed to provide emergency responders with a basic knowledge of the indications and hazards of clandestine methamphetamine laboratories. The class is not intended to qualify participants to enter a meth lab.

# BOMB THREAT MANAGEMENT

This two-hour course is designed for presentation to emergency responders, school officials, business owners, and government officials to provide suggested procedures for dealing with a bomb threat and the discovery of a suspicious item. The class is not intended to qualify participants to handle or dispose of a suspicious item.



These classes are presented to local agencies at no cost by Missouri Division of Fire Safety personnel. To schedule a class, contact Deputy Chief Kim Becker at 573-751-2930 or at Kim.Becker@dfs.dps.mo.gov.

## **Investigation Unit Report**

Division of Fire Safety Investigators investigated fires involving over \$52,000,000 in losses from July 1, 2006 through January, 2007.

A total of 750 fires and explosions were investigated across Missouri during this seven month period. These incidents involved 36 fatalities, including 11 who perished in the Anderson Guest House fire on November 27, 2006.

Investigators determined that 196 of the fires investigated were of incendiary origin and 185 accidental. A total of 11 incidents involving explosive devices were investigated.





Eleven people perished in the Anderson Guest House fire in McDonald County on November 27, 2006

# DIVISION INVESTIGATORS ASSIST HANNIBAL OFFICIALS TO SOLVE OVER 12 FIRES

by Deputy Chief Bill Zieres

A joint investigation by the Division of Fire Safety, Hannibal Police Department, and Hannibal Fire Department resulted in the arrest of a Hannibal man which cleared over a dozen incendiary fires in the Hannibal area.

Paul Coffey Jr. was arrested on Jan. 2, 2007 and charged with Knowingly Burning or Exploding, a class D felony.

For over three months, more than a dozen vehicles and trash dumpsters were intentionally burned in Hannibal.

"On the surface, these incidents could have easily been overlooked. However, these incidents attracted not only the attention of our department, it also attracted the attention of the citizens of Hannibal and the local media," Hannibal Fire Chief Tim Carter said.

"I am impressed with the diligence of Ron McAfee and Bill Albus, both could be considered the 'driving force' behind the progression of these investigations," he said.



# INVESTIGATION RESPONSE CRITERIA



### by Deputy Chief Bill Zieres

Division of Fire Safety Fire Investigators are on call 24 hours a day, 7 days a week, with two shifts alternating weekend duty. The Division's Jefferson City office can be contacted at 573-751-2930, Monday through Friday, except holidays, between 8:00 a.m. and 5:00 p.m. If you are unable to contact an investigator, the closest Missouri State Highway Patrol troop headquarters should be contacted and requested to assist with locating an investigator.

### Basic Requirements to request a Division investigator:



"Send me an investigator!"

- An official request must be made from a fire or law enforcement agency. The Division does not answer requests for investigations from citizens or insurance company representatives.
- The fire must be fully extinguished before an investigation can begin.
- As much information as possible should be transmitted to the investigator.
- If at all possible, the investigator needs to speak directly with someone at the incident scene or who has been at the scene.

### <u>Priority Responses</u> (24 hours a day, 7 days a week)

- Fires involving fatalities or injuries
- Fire with supporting evidence of arson
- Explosions
- Discovery of explosive devices
- Major disasters

### General Responses (Monday through Friday, except holidays, between 8:00 a.m. and 5:00 p.m.)

- Total loss fires (with consent)
- Out buildings
- Vehicles
- Fire exposure to inhabitable structures
- Insurance fraud
- Fireworks complaints/violations

### Investigation Response Criteria

### No Response

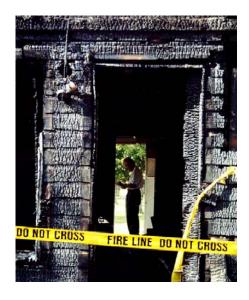
- Natural cover fire
- Hay bales

### **Scene Security**

Scene security is extremely important during any fire investigation. The United States Supreme Court has ruled that the investigation of a fire must be a continuation of the initial response to that fire.

To properly secure a fire scene while waiting for an investigator, entry must be limited to only those authorized personnel with duties in the structure. Personnel need to be posted at all points of entry into the structure to keep unauthorized individuals out. If the scene has been unsecured, it is necessary to get either the voluntary consent of the owner/occupant or a search warrant for investigators to enter the property.

If an investigator will be assisting local agencies, it is important to remember evidence should be left where it is found unless there is a possibility of further destruction by fire.





#### **Structure Fires**

Investigators are available to assist with the investigation of structural fires which may involve the possibility of arson, fatalities, or in the case of a major loss fire. If adequately trained personnel are locally available, they should be utilized to conduct an initial fire scene examination to determine the necessity for requesting a state investigator.

It is important to remember that if an investigator is going to be requested, overhaul operations should be limited only to needed areas and the scene must be kept as free of contamination as possible.

#### Fatal Fires

Fires involving fatalities have the highest priority for the State Fire Marshal's Office. It is vital that the scene of a fatal fire be secured until the investigation has been completed. If there is a chance of foul play being involved, the body should be protected and left where found until the investigator can arrive.

Many times, the area surrounding the victim and the body, itself, may contain valuable evidence. All efforts must be made to advise other agencies with duties involving a fatal fire of the necessary precautions to protect any possible evidence and the need to conduct a thorough investigation.

### Investigation Response Criteria

#### **Vehicle Fires**

The investigation of vehicle fires presents additional problems for both the fire department and the fire investigator due to scene security and the preservation of possible evidence.

Should you require assistance with a vehicle fire investigation, contact a Division fire investigator. During night hours and weekends, the investigator may advise that the vehicle should be towed to a secure area and be examined at the first available time. This is an acceptable procedure for Division investigations.

You should provide the investigator with contact information for the owner/driver, fire personnel and the location of the tow facility.

#### **Total Loss Fires**

The major problem encountered in total loss structural fires is the difficulty in determining the area of origin when a structure burns to the ground. Division investigators are available to assist with the investigation of total loss fires, however due to the problems in establishing an exact cause, these fires normally will have a lower priority in their case load.

The exception to this procedure is when a fatality has occurred. In the event of a fatality, the investigator will respond to the scene as soon as possible while the fire department remains to secure the scene.



### **Natural Cover Fires**

Division of Fire Safety Investigators do not investigate natural cover fires involving grass, brush, or hay bales. Although these fires may be common, the heavy case load and limited number of investigators prohibit involvement with these types of fires.

### **Undiscovered Losses**

Division investigators do not investigate fires to which a fire department did not respond or fires which were unreported to a fire department and discovered at a later time.

The Division does realize there are exceptions to all cases and will assist if the case so warrants.

### Follow-up Investigations

An important part of any fire investigation is the follow-up investigation if it has been determined that a crime was committed.

As certified law enforcement officers, Division investigators are trained in criminal investigation techniques and will assist local authorities in any follow-up investigation or incidents they have become involved with as requested.

In addition to arrest authority in investigations, the Division also has the power to issue subpoenas to assist in obtaining essential information required to develop a successful case.

Follow-up investigations of incendiary fires, bombings, and fatal fires take the highest priorities for Division investigators. However, local agencies should be aware that an investigator may be called to another fire scene during which time a follow-up investigation is underway.

### **How Safe Are The Combustion Controls on Your Boiler?**

by Deputy Chief Gary Scribner

On January 1, 2004 Missouri Boiler and Pressure Vessels rules were changed to require all new installations or modifications to meet the American Society for Mechanical Engineers code CSD-1 (Controls and Safety Devices for Automatically Controlled Boilers). Boilers installed in private residences and those installed before this date are exempt from this requirement, but are they safe?

CSD-1 covers all aspects of boiler controls and safety devices. For the purposes of this article, however, let's just cover the combustion controls. What are combustion controls? Simply put, these controls ensure a proper air and fuel mixture to provide for better efficiency of the boiler and giving you the benefit of lower energy bills. When this fuel air mixture is not correct the boiler will at least build soot up and over time become less and less efficient. Dirty boilers and burners result in high fuel bills, but more importantly allow carbon monoxide to enter the building causing carbon monoxide poisoning.



So where does this air come from? For boilers which

fall within the state's regulations a permanent source of outside air must be provided through louvers or openings to the outside. When combustion air supplies are shut off or obstructed the boiler flame can start to smoke. Incomplete combustion will occur and carbon monoxide is generated.

If the fire goes out before a flame detection system acts to close the fuel safety shut off valve, accumulated fuel may re-ignite when oxygen levels permit. This can result in a furnace explosion and have devastating effects. Boilers installed before new codes were in effect may not have these interlocks and could restart on their own or even start when an untrained person attempts to restart a boiler. All with the same devastating effects.

Residences fall within local codes and may allow for air to be drawn from other parts of the house. With all the emphasis on energy savings, new construction and renovations tend to focus on tightening homes by sealing all air spaces. If proper consideration is not given to all gas or oil burning equipment, the results can be devastating.

Boilers and water heaters can backdraft. This happens when the burner, in the search for the air it needs, pulls the exhaust air back down the flue and into the house. This results in all of the carbon monoxide being discharged into the structure.

So what can you do to prevent this from happening in your home or business?

- 1. Have a qualified person evaluate your boiler system to see if it has the interlocks required by CSD-1. If not, consider upgrading your combustion system.
- 2. Make sure you have an adequate supply of combustion air with no obstructions.
- 3. Make sure anyone who works on your boiler is properly trained.
- 4. Install carbon monoxide warning devices.

For home owners with any gas or fuel-fired equipment, it is highly recommended a carbon monoxide warning device be installed. Have your equipment serviced by a qualified person annually or anytime you question its proper operation. Lastly, consult your local building inspector or heating and ventilation expert prior to remodeling you home.

### **ELEVATOR SAFETY UNIT TECHNOLOGY UPGRADE**

by Amiee Forck, Elevator Safety Unit

The Division of Fire Safety is excited to announce a technological expansion is taking place within the Elevator Safety Unit. We are currently in the process of implementing a new web-based database system. This new program will allow all Division and third party-licensed elevator inspectors to enter and submit inspection reports to our office online.

In addition, installers and owners will be able to enter permit applications or variance requests online. The website will also allow owners or inspectors to look up the history of a piece of equipment or installation to check the status of an inspection or last issuance of a State Operating Certificate.

The Division started the project in September of 2006 with expectations of developing the majority of the program by the end of the fiscal year. This deadline has been met and we are



currently in the process of running tests, populating the data into the program, and training all of our Elevator Safety Unit employees.

We have tentatively scheduled training for the remaining licensed Inspectors for March 5, 2007 at our office in Jefferson City. The month of March will be used as a testing phase to ensure the readiness of each feature of the program. The new program and updated database is scheduled to be fully implemented on April 2, 2007.

This program will be a huge asset to the Division as it is designed to allow for quicker turnaround times for submission, processing and invoicing of elevator equipment inspections, installation/alteration permit applications and variance requests. Since the information we receive should be more current than in the past, the new program will allow the Elevator Safety Unit to retain and provide records which are more timely and accurate.

We hope the success of this new program will allow the Elevator Safety Unit to enhance efficiency and thus offer better service for the people who install, own, inspect and use elevator equipment throughout the State of Missouri. And, while we may be busy with all the changes, we will do our best to be available for any assistance which may be needed.

# **National Fire Incident Reporting System**

by NFIRS Manager Jim McKenney

Missouri is an active member in the National Fire Information Council and the United States Fire Administration's National Fire Incident Reporting System (NFIRS). NFIRS information plays an important role in providing information to many key agencies at the federal, state, and local government levels. Examples of some federal partners are: United States Fire Administration, National Fire Protection Association, Consumer Product Safety Council, National Fire Sprinkler Association and International Association of Fire Fighters.

Examples of state-level partners are Division of Fire Safety, Department of Public Safety, State Emergency Management Agency and Department of Health and Senior Services. Local level partners include fire departments, county and city government, and agencies requesting fire-related statistical information to assist in identifying the fire problem within their communities.



We can not emphasize enough the importance of timely and accurate data from the fire departments which actively participate in the NFIRS Program.

The USFA conducts monthly audits of the data submitted by all participating states. For calendar year 2006, Missouri has reported 375 invalid incidents in the database which is a 0.16% error rating. The Division appreciates the support we receive from the departments who currently report to NFIRS. This low error rating could not be achieved without the dedication of the fire department personnel who enter the data into the NFIRS program.

The Division receives numerous phone calls from fire departments using the NFIRS data entry tool or bulk import tool advising their account password has expired. The reason for this is FEMA monitors the activity of the fire departments and if you have not accessed your account for 60 days FEMA will change your account to inactive. The error code you receive is "password has expired." To avoid this problem all departments are encouraged to make a point of logging into the Data Entry Tool or Bulk Import Tool monthly, even if you do not enter an incident.

The 2006 Missouri Summary by Incident Type is available at www.dfs.dps.mo.gov/dfsnfir.htm. The total number of incidents are down from calendar year 2005; however, we still have several departments that have not reported December incidents for calendar year 2006.

### Software Update Information

Those fire departments using the software provided by USFA should be aware of the upcoming new Version 5.4.2. When the release is ready you will be prompted to download the new version when you login to the NFIRS data entry tool. Technical support has indicated this should happen sometime in February.